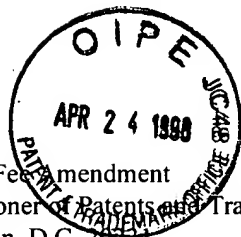


gp 2763.

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April 21, 1998

Box Non-Fee Amendment
Commissioner of Patents and Trademarks
Washington, D.C. 20231

Re: Applicant: Amr M. Mohsen
Assignee: Aptix Corporation
Title: Field Programmable Printed Circuit Board
Serial No.: 08/632,298 Filed: April 12, 1996
Examiner: V. Trans Group Art Unit: 2763
Docket No.: M-1007-6C US

Sir:

Transmitted herewith are the following documents in the above-identified application:

- (1) Response (5 pages);
- (2) Return Postcard; and
- (3) this transmittal sheet (in triplicate).

- ☒ No additional fee is required.
☐ The fee has been calculated as shown below:

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GROUP 2600

CLAIMS AS AMENDED

	<u>Claims Remaining After Amendment</u>		<u>Highest No. Previously Paid For</u>		<u>Present Extra</u>		<u>Rate</u>		<u>Additional Fee</u>
Total Claims	58	Minus	58	=	0	x	\$22	\$	0.00
Independent Claims	12	Minus	12	=	0	x	\$82	\$	0.00
<input type="checkbox"/>	Fee of \$270 for the first filing of one or more multiple dependent claims per application							\$	0.00
Total additional fee for this Amendment:								\$	0.00

☐ Fee for Request for Extension of Time (months) \$ 0.00

☒ Conditional Petition for Extension of Time: If an extension of time is required for timely filing of the enclosed document(s) after all papers filed with this transmittal have been considered, an extension of time is hereby requested.

☐ Please charge our Deposit Account No. 19-2386 in the amount of \$ 0.00

☒ Also, charge any additional fees required and credit any overpayment to our Deposit Account No. 19-2386.

I hereby certify that this correspondence is being deposited with the United States Postal Service as First Class Mail in an envelope addressed to: Commissioner of Patents and Trademarks, Washington, D.C. 20231,

on April 21, 1998.

Ronald J. Meetin 21 Apr. 1998
Attorney for Applicant(s) Date of Signature

Respectfully submitted,

Ronald J. Meetin

Ronald J. Meetin
Attorney for Applicant
Reg. No. 29,089

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant:

Amr M. Mohsen

Assignee:

Aptix Corporation

Title:

FIELD PROGRAMMABLE PRINTED CIRCUIT BOARD

Serial No.:

08/632,298

Filed:

April 12, 1996

Examiner:

V. Trans

Group Art Unit:

2763

Docket No.:

M-1007-6C US

San Jose, California

April 21, 1998

BOX NON-FEE AMENDMENT

COMMISSIONER OF PATENTS AND TRADEMARKS

Washington, D. C. 20231

RESPONSE

Sir:

The following remarks are submitted in response to the Office Action mailed 21

January 1998 for the above patent application.

Claims 20 - 77 are pending.

Claims 20 - 77 have again been rejected under the doctrine of obviousness-type double-patenting as being unpatentable over Claims 1 - 17 of U.S. Patent 5,377,124. The Examiner has incorporated by reference the double-patenting rejection from the prior Office Action. With reference to the prior Office Action, the Examiner presumably means to indicate that the double-patenting rejection could be overcome by submitting a suitable terminal disclaimer.

Repeating what was said in the Amendment dated 28 July 1997 and submitted in response to the prior Office Action, a determination has not yet been made as to what subject

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matter is allowable in the present application but for double-patenting considerations.

Consequently, Applicant's attorney is not presently in a position to determine whether to submit the suggested terminal disclaimer or to contest the double-patenting rejection. For this reason, it is again respectfully requested that the double-patenting rejection be placed in abeyance until all of the otherwise allowable subject matter has been ascertained.

Claims 20 - 77 have again been rejected under 35 USC 102(e) as anticipated by Chang et al ("Chang"). The Examiner has incorporated by reference from the prior Office Action the 35 USC 102(e) rejection based on Chang. This rejection is respectfully traversed.

The Examiner says that "The disclosure of Chang et al in which the examiner relied upon is disclosed in the application filed on 22 February 1989. Thus, the Chang et al reference qualifies as 35 U.S.C. 102(e)."

Chang claims to be a continuation-in-part of U.S. patent application Ser. No. 07/438,325 ("Chang's parent"), now abandoned, which claims to be a continuation-in-part of U.S. patent application Ser. No. 07/314,817 ("Chang's grandparent"), also now abandoned. As provided in the 28 July 1997 amendment, both the actual filing date of Chang and the filing date of Chang's parent are too late to qualify any part of Chang as prior art to the present application. However, the filing date of Chang's grandparent is sufficiently early that part of Chang may be prior art to the present application. In accordance with the Examiner's suggestion, Applicant's attorney has obtained and reviewed both Chang's grandparent and Chang's parent.

The present application contains twelve independent claims, Nos. 20, 23, 29, 37, 40, 42, 43, 50, 53, 57, 65, and 72. Repeating part of what was said in the 28 July 1997 amendment, each of independent structure Claims 20, 23, 29, 37, 40, 42, 57, and 72 recites at least one programmable interconnect chip ("PIC") or programmable integrated circuit (also

"PIC") having conductive leads that are programmably interconnectable for programmably interconnecting electronic components connected to a substrate (such as a board or a printed circuit board). Each of independent method Claims 43, 50, 53, and 65 likewise recites that the conductive leads of at least one PIC are programmably interconnectable for programmably interconnecting electronic components connected to a substrate.

Chang does not disclose any programmable interconnect chip or programmable integrated circuit having conductive leads that are programmably interconnectable for programmably interconnecting electronic components mounted on the substrate of Chang's multichip module. Nor does Chang's grandparent (or Chang's parent) disclose any programmable interconnect chip or programmable integrated circuit having conductive leads that are programmably interconnectable for programmably interconnecting electronic components mounted on the substrate of the multichip module in Chang's grandparent (or Chang's parent). To the extent that any part of Chang may be prior art to the present claims by virtue of material carried over from Chang's grandparent, Chang therefore does not anticipate any of the twelve independent claims. That is, Chang does not anticipate any of Claims 20, 23, 29, 37, 40, 42, 43, 50, 53, 57, 65, and 72.

Nothing in Chang's grandparent (or Chang's parent) causes Applicant's attorney to alter the additional remarks made about the foregoing claims in the July 1997 amendment. For the Examiner's convenience, those remarks are largely repeated here.

In failing to disclose any PIC, Chang specifically lacks the programmably interconnecting means of Claims 20, 23, 37, and 42. Likewise, Chang lacks the computer/PIC interface recited in Claims 29, 43, 50, and 53. Furthermore, Chang lacks the bus system recited in Claim 72 for electrically interconnecting multiple PICs.

Chang also fails to disclose the limitation of each of Claims 20, 23, 37, 42, and 50 that at least one of the conductive leads be divided into two or more conductive segments. Chang lacks the buses recited in Claims 29 and 57. Chang does not meet the limitation of Claim 40 that the "conductive traces on" the "substrate have a standard configuration independent of the electronic components to be mounted on said substrate and the electrical function to be implemented by said electronic components when selectively interconnected by said at least one programmable integrated circuit".

The foregoing remarks show that everyone of independent Claims 20, 23, 29, 37, 40, 42, 43, 50, 53, 57, 65, and 72 differs from Chang in one or more ways. Since Chang does not disclose or suggest a PIC, Chang does not make any of these twelve independent claims obvious. Insofar as any part of Chang constitutes prior art to the present claims, Claims 20, 23, 29, 37, 40, 42, 43, 50, 53, 57, 65, and 72 are therefore patentable over Chang.

As also provided in the July 1997 amendment, Claims 21, 22, 24 - 28, 30 - 36, 38, 39, 41, 44 - 49, 51, 52, 54 - 56, 58 - 64, 66 - 71, and 73 - 77 variously depend (directly or indirectly) from independent Claims 20, 23, 29, 37, 40, 42, 43, 50, 53, 57, 65, and 72. To the extent that any part of Chang is prior art to the present claims, the dependent claims are allowable over Chang for the same reasons as the independent claims.

In summary, Applicant's attorney has requested that the double-patenting rejection be placed in abeyance until all of the otherwise allowable subject matter has been ascertained. To the extent that any part of Chang constitutes prior art to the present claims, all of Claims 20 - 77 have been shown to be patentable over Chang. Accordingly, it is respectfully requested that Claims 20 - 77 be declared to contain allowable subject matter subject to resolving the double-patenting issue.

Please telephone Applicant's attorney at 408-453-9200, ext. 1371, if there are any questions.

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on April 21, 1998.

Ronald J. Meetin 21 Apr 1998
Attorney for Applicant(s) Date of Signature

Respectfully submitted,

Ronald J. Meetin

Ronald J. Meetin
Attorney for Applicant
Reg. No. 29,089